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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/685,020	10/14/2003	Lawrence Hamann	LA0070 DIV	4313

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EXAMINER	
SHIAO, REI TSANG	
ART UNIT	**PAPER NUMBER**
1626	

DATE MAILED: 02/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/685,020	HAMANN ET AL.	
	Examiner	Art Unit	
	Robert Shiao	1626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *responses filed on 12/06, 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-5* is/are pending in the application.

4a) Of the above claim(s) *4 and 5* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *11/24/03*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. This application claims benefit of the provisional application: 60/309,059 with a filing date 07/31/2001.

2. Claims 1-5 are pending in the application.

Responses to Election/Restrictions

3. Applicant's election with traverse of Group I claims 1-3, in part, in the reply filed on December 06, 2004, is acknowledged. The traversal is on the grounds that applicants do not believe a serious burden would be imposed upon the Examiner to search the claimed genus of compounds. This is not found persuasive, and the reasons are given, *infra*.

Status of the Claims

4. Claims 1-5 are pending in the application. The scope of the invention of the elected subject matter is as follows:

Claims 1-3, in part, drawn to compounds/compositions of formula (1a), wherein the variables R_1, R_3, R_5, $R_{5'}$, R_6, or $R_{6'}$ independently does not represent heteroaryl, heterocycle, or heterocycloalkyl, the variables R_1, R_3, R_5, $R_{5'}$, R_6, or $R_{6'}$ independently is not substituted with heteroaryl, heterocycle, or heterocycloalkyl; the variable X represent ($-CH_2-$) thereof, the variables W, A, B, Y and Z are as defined in claim 1; the variable n is an integer of 1 thereof.

The above mentioned withdrawn compounds which are withdrawn from consideration as being for non-elected subject matter differ materially in structure and

composition from the compounds of the elected invention. The withdrawn compounds contain varying functional groups (i.e., heteroaryl or heterocycloalkyl of the variables R_1, R_3, R_5, $R_{5'}$, R_6, or $R_{6'}$) which differ from those of the elected invention Group II-V, which are chemically recognized to differ in structure and function. This recognized chemical diversity of the functional groups can be seen by the various classification of these functional groups in the U.S. classification system, i.e., class 548 subclass 215(+) (oxazole), class 548 subclass 300.1(+) (diazole), class 546 subclass 249 (+) (pyridine), class 568 subclass 27 (+) (sulfonylphenyl), class 544 subclass 358(+) (piperazine), class 544 subclass 106(+) (morpholine), etc. Therefore, again, the compounds which are withdrawn from consideration as being for non-elected subject matter differ materially in structure and composition and have been restricted properly.

The Markush group set forth in the claims includes both independent and distinct inventions, and patentably distinct compounds (or species) within each invention. However, this application discloses and claims a plurality of patentably distinct inventions far too numerous to list individually. Moreover, each of these inventions contains a plurality of patentably distinct compounds, also far too numerous to list individually. Moreover, the examiner must perform a commercial database search on the subject matter of each group in addition to a paper search, which is quite burdensome to the examiner.

Since the newly added claims are commensurate with the scope of the invention, therefore, the invention claims, 1-3, in part, embraced in above elected subject matter, are prosecuted in the case. Claims 1-3, in part, not embraced in above elected subject

matter, and claims 4-5 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention.

The requirement is still deemed proper and is therefore made **FINAL**.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 3 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims contains subject matter "selective estrogen receptor modulators, growth hormone secretagogues, progesterone receptor modulators, anti-diabetic agents, anti-hypertensive agents, anti-inflammatory agents, anti-osteoporosis agents, anti-obesity agents, cardiac glycosides, cholesterol lowering agents, anti-depressants, anti-anxiety agents, anabolic agents, and thyroid mimetics", which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention, see claim 3, lines 3-8. Incorporation of the limitation of the above subject matter into the claim would obviate the rejection, see page 30-34.

6. Claim 3 is rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for the instant composition includes anti-anxiety

agents selected from diazepam, lorazepam, buspirone, oxazepam, and hydroxyzine pamoate, does not reasonably provide enablement for the instant composition includes an anti-anxiety agent other than diazepam, lorazepam, buspirone, oxazepam, and hydroxyzine pamoate, i.e., zolpidem. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to use the invention commensurate in scope with these claims.

For rejections under 35 U.S.C. 112, first paragraph, the following factors must be considered (In re Wands, 8 USPQ2d 1400, 1988):

1) Nature of invention.

2) State of prior art.

3) Level of ordinary skill in the art.

4) Level of predictability in the art.

5) Amount of direction and guidance provided by the inventor.

6) Existence of working examples.

7) Breadth of claims.

8) Quantity of experimentation needed to make or use the invention based on the content of the disclosure.

See below:

1) Nature of the invention.

The claim is drawn to a complex pharmaceutical composition comprising a compound of formula (Ia) and an additional therapeutic agent without limitation.

2) State of the prior art.

The reference Aebi et al. 6,790,860 does not indicate which compounds of instant compounds may be useful in the claimed invention. Aebi et al. '860 is pertaining to pyrrolidine derivatives.

3) Level of ordinary skill in the art.

The level of ordinary skill in the art is high. Applicants claim a complex pharmaceutical composition comprising a compound of formula (Ia) and an additional therapeutic agent without limitation. Applicant's specification does not enable the public to prepare such a numerous processes using "a complex pharmaceutical composition comprising a compound of formula (Ia) and an additional therapeutic agent without limitation", i.e., wherein the anti-anxiety agents not selected from diazepam, lorazepam, buspirone, oxazepam, and hydroxyzine pamoate, etc., by the instant examples disclosed in the specification.

4) Level of predictability in the art.

Applicants claim a complex pharmaceutical composition comprising a compound of formula (Ia) and an additional therapeutic agent without limitation, remains highly unpredictable, see claim 3, lines 3-8. Different types of the genus of the compositions "a complex pharmaceutical composition comprising a compound of formula (Ia) and an additional therapeutic agent without limitation" in the specification, there would be little predictability in the scope of claimed processes.

5) Amount of direction and guidance provided by the inventor.

Applicants claim a complex pharmaceutical composition comprising a compound of formula (Ia) and an additional therapeutic agent without limitation, encompasses a vast number of compositions. Applicant's limited guidance does not enable the public to

disclose such a numerous amount of "a complex pharmaceutical composition comprising a compound of formula (Ia) and an additional therapeutic agent without limitation" in the specification". There is no enablement for "a complex pharmaceutical composition comprising a compound of formula (Ia) and an additional therapeutic agent without limitation", the instant compositions include an anti-anxiety agent other than diazepam, lorazepam, buspirone, oxazepam, and hydroxyzine pamoate, i.e., zolpidem, etc., many of which are neither enabled nor supported in the specification.

6) Existence of working examples.

Applicants claim a complex pharmaceutical composition comprising a compound of formula (Ia) and an additional therapeutic agent without limitation, encompasses a vast number of compositions. Applicant's limited working examples do not enable the public to prepare such a numerous "a complex pharmaceutical composition comprising a compound of formula (Ia) and an additional therapeutic agent without limitation". Applicants claim "a complex pharmaceutical composition comprising a compound of formula (Ia) and an additional therapeutic agent without limitation", however, the specification provides only limited examples of compositions.

7) Breadth of claims.

The claim is extremely broad due to the vast number of possible "a complex pharmaceutical composition comprising a compound of formula (Ia) and an additional therapeutic agent without limitation".

8) Quantity of experimentation needed to make or use the invention based on the content of the disclosure.

The specification did not enable any person skilled in the art to which it pertains

to make or use the invention commensurate in scope with this claim. In particular, the specification failed to enable the skilled artisan to practice the invention without undue experimentation. The skilled artisan would have a numerous amount of modifications to perform in order to obtain "a complex pharmaceutical composition comprising a compound of formula (Ia) and an additional therapeutic agent without limitation" as claimed. Based on the unpredictable nature of the invention and state of the prior art and the extreme breadth of the claims, one skilled in the art could not perform the claimed process without undue experimentation, see In re Armbruster 185 USPQ 152 CCPA 1975. Incorporation of the limitation of "selective estrogen receptor modulators, growth hormone secretagogues, progesterone receptor modulators, anti-diabetic agents, anti-hypertensive agents, anti-inflammatory agents, anti-osteoporosis agents, anti-obesity agents, cardiac glycosides, cholesterol lowering agents, anti-depressants, anti-anxiety agents, anabolic agents, and thyroid mimetics"into the claim respectively would obviate the rejection, see page 30-34 of the specification.

Double Patenting

7. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA

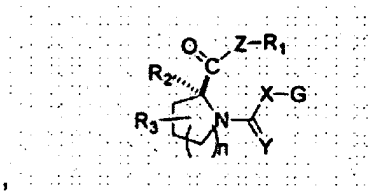
1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington,*. 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

8. Claims 1-3 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 1 of Hamann et al. copending Application No.10/712,456. Although the conflicting claims are not identical, they are not patentably distinct from each other and reasons are as follows.

Applicants claim a compound of formula (Ia) as agents treating sarcopenia, wherein the variables R_1, R_3, R_5, $R_{5'}$, R_6, or $R_{6'}$ independently does not represent heteroaryl, heterocycle, or heterocycloalkyl, the variables R_1, R_3, R_5, $R_{5'}$, R_6, or $R_{6'}$ independently is not substituted with heteroaryl, heterocycle, or heterocycloalkyl; the variable X represent (-CH_2-) thereof, the variables W, A, B, Y and Z are as defined in claim 1; the variable n is an integer of 1 thereof. The compound is found on the pages 5-13 of the specification.

Hamann et al. '456 claim a compound of the formula (I) as agents treating sarcopenia,  , wherein the variable n is 1; the variable Y represents O or S, or NR_4, and R_4 is hydrogen; the variable X represents NR_4, and R_4 is hydrogen; the variable G represents optionally substituted polycyclic ring system selected from the group consisting of aryl (i.e., naphthalene); the variable R_2 or R_3 independently represents hydrogen or alkyl; the variable Z represents O; an the variable R_1 represents alkyl (i.e., methyl). The compound is found on the pages 2-14 of the specification.

The difference between Hamann et al. and instant claims is that the variable R_1 of the formula (I) of Hamann et al. represents hydrogen or alkyl, while instant claims is methyl at the same position.

One having ordinary skill in the art would find the instant claims 1-3 prima facie obvious **because** one would employ the compounds of Hamann et al., wherein the variables R_1, R_3, R_5, $R_{5'}$, R_6, or $R_{6'}$ independently does not represent heteroaryl, heterocycle, or heterocycloalkyl, the variables R_1, R_3, R_5, $R_{5'}$, R_6, or $R_{6'}$ independently is not substituted with heteroaryl, heterocycle, or heterocycloalkyl; the variable X represent ($-CH_2-$) thereof, the variables W, A, B, Y and Z are as defined in claim 1; the variable n is an integer of 1 thereof.

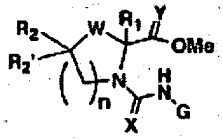
The motivation to make the claimed compounds derives from the expectation that the instant claimed compounds would possess similar activities, i.e., agents treating

sarcopenia, from the known Hamann et al. compounds to that which is claimed in the reference.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

9. Claims 1-3 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 7 of Sun et al. copending Application No.10/438,722. Although the conflicting claims are not identical, they are not patentably distinct from each other and reasons are as follows.

Applicants claim a compound of formula (Ia) as agents treating sarcopenia, wherein the variables R_1, R_3, R_5, $R_{5'}$, R_6, or $R_{6'}$ independently does not represent heteroaryl, heterocycle, or heterocycloalkyl, the variables R_1, R_3, R_5, $R_{5'}$, R_6, or $R_{6'}$ independently is not substituted with heteroaryl, heterocycle, or heterocycloalkyl; the variable X represent ($-CH_2-$) thereof, the variables W, A, B, Y and Z are as defined in claim 1; the variable n is an integer of 1 thereof. The compound is found on the pages 5-13 of the specification.

Sun et al. '722 claim a compound of the formula (Ih) as agents treating sarcopenia,  , wherein the variable n is 1; the variable X or Y independently represents O or S; the variable G represents aryl (i.e., naphthalene); the

variable W represents ($CR_6R_{6'}$); the variable R_2 or $R_{2'}$ independently represents hydrogen or alkyl. The compound is found on the pages 6-20 of the specification.

The difference between Sun et al. and instant claims is that the variable X of the formula (Ih) of Hamann et al. represents O or S, while instant claims is O, S or NH at the same position.

One having ordinary skill in the art would find the instant claims 1-3 prima facie obvious **because** one would employ the compounds of Sun et al., wherein the variables R_1, R_3, R_5, $R_{5'}$, R_6, or $R_{6'}$ independently does not represent heteroaryl, heterocycle, or heterocycloalkyl, the variables R_1, R_3, R_5, $R_{5'}$, R_6, or $R_{6'}$ independently is not substituted with heteroaryl, heterocycle, or heterocycloalkyl; the variable X represent ($-CH_2-$) thereof, the variables W, A, B, Y and Z are as defined in claim 1; the variable n is an integer of 1 thereof.

The motivation to make the claimed compounds derives from the expectation that the instant claimed compounds would possess similar activities, i.e., agents treating sarcopenia, from the known Sun et al. compounds to that which is claimed in the reference.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Objection

10. Claims 1-3 are objected to as containing non-elected subject matter, i.e., the variable R_1 R_3, R_5, or R_6 of formula (Ia) of claim 1 does not represent heteroaryl,

heterocyclo, or heterocycloalkyl, variable X does not represent O, and the variable n does not represent an integer 2.

Telephone Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert Shiao whose telephone number is (571) 272-0707. The examiner can normally be reached on 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph K. McKane can be reached on (571) 272-0699. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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